Innovation in motion
FTP addressing the RTD&I bottlenecks in climate and energy
Perceptions of the forest-based sector...
Vision and Strategy of the sector matching societal concerns

Societal concern: reduction of GHG emissions

In EU  >> compliance with Effort-Sharing regulation bill
   >> **LULUCF:** reduce GHG emissions by 40% below 1990 levels by 2030
   >> Intensive soil exploitation; harvesting exceeding forest stock

Global  >> cap global warming; 2°C target; compliance with Paris Agreement

Concern of forest owners today

*Expected achievements by 2020 [RIA 1.1]*
Based on quantitative data the forest-based sector has proven to be one of the major mitigators of excessive CO\textsubscript{2} concentrations in the atmosphere. The forest-based industries have developed new products and service concepts, which are produced with zero net-carbon emissions; they are able to replace a large number of products based on fossil and non-renewable resources.
Building with wood

No rocket science, but today’s technology

> 60% reduction of CO₂ emissions if the European Parliament had been built with wood

This equals 1 years’ CO₂ emissions from 10 thousand EU-citizens!
The Forest City: tradition meets innovation

The best strategy to immediately fulfil the Paris COP21 Climate Agreement is to build with wood!

Innovation in Action

✓ Modern and multi-storey wood constructions
✓ Low embodied energy
✓ Low weight
✓ High thermal insulation
✓ New wood-based buildings and cities!

EU-funded research projects

Forest-based Sector
Main challenges of forest terrain transport:

1. Cost/productivity
2. Accessibility (Seasonal and weather-induced impediment of forwarder mobility)
3. Damages to ground vegetation and soil on the forest-floor

Innovation in Action

- Solutions and technology exist on demo scale
- Obstacle: Lack of risk funding
Vision and Strategy of the sector matching societal concerns

Societal concern: use of forest biomass for energy

In EU  >> Intensive soil exploitation; harvesting exceeding forest stock
       >> Land use competition with agriculture crops
Global >> Import of wooden logs from other global regions increasing risk of deforestation and biodiversity loss

Concern of forest owners today

FTP Vision Target #2
“... Bearing in mind the full range of demand and production constraints*, harvesting possibilities in Europe have increased by 30% (until 2030), enabling forest owners to manage their forests more efficiently and sustainably.”

* In many regions specific forest growth is increasing and management is optimised for additional harvesting possibilities. In other regions, especially in the Mediterranean area, where the impact of climate change is predicted to be severe, creating resilient, stress-tolerant forest is particularly important. In some landscapes the main aim is nature conservation and providing ecosystem services.
Benefits for society?

Some figures...
+120 Million m$^3$ timber harvested each year
+ 5 bn Euro value for forest owners*

Or alternatively*:
+20 days of EU’s total petroleum products consumption
+ ca 20 bn Euro value

But if the timber is utilised by the forest-based industries* = +75 bn Euro in value

* These figures are calculated using theoretical values and trade statistics. Precision is not guaranteed
Annual production of roundwood, EU28

circa 650 m³ annual increment below bark
Sustainable harvesting possibilities in Europe
Current and recent EU-funded research projects

Aim: to coordinate raw materials research across different value-chains and national networks.
Deliverable: Research and Innovation Roadmap 2050 for EU Raw Materials
How FTP works

Mission

To implement the European Strategic Research and Innovation Agenda (SRA) for the benefit of the forest based sector’s actors

- Create opportunities for cooperative research and innovation on a European level
- Set ambitious targets for research & innovation
- Mobilise a critical mass of research & innovation
EU R&D funding to the forest-based sector is increasing

*2014 was the initial year of the Framework Programme. Funding is allocated in the following year.*
Bottom up approaches

FTP National Support Groups mobilise a critical mass of knowledge on the sector’s RTD&I needs
2. Organisation and stakeholders

Organisation

4 European Confederations covering
Woodworking Industries
Pulp & Paper Industries
Private Forest Owners
State Forests

3 Research Umbrella Organisations

25 National Support Groups (NSG)
National Federations, Companies, Forest owners, Funding Agencies, Researchers
Forest-based Sector
Technology Platform

The European hub for research and innovation in the forest-based bioeconomy

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